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# Introducing Environmental Taxes in Tanzania: An Empirical Analysis

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**ABSTRACT**
Environmental tax is very crucial to support the government revenue in both developing and developed countries. The aim of this paper is assess the important of introducing environmental taxes in Tanzania. The empirical analysis was used from 13 research articles and different reports from various international institutions database such as International Momentary Fund (IMF), World Bank (WB) and African development bank and Tanzania Revenue Authority (TRA) from semantic scholar, google scholar and research gate. The study found that introducing of environmental taxes are very important since source of revenue, improve the environmental, environmental taxes provide a continued incentive to cut emissions at all levels. The study recommends that the effective environmental taxes should need to be proportionate to the harm done to the environment, the flexibility of environmental taxes to offer comparable abatement incentives on each unit of pollution is one of its benefits, the tax rate need to be proportionate to the harm done to the environment and reflecting environmental damage.
**Keywords;** Environmental, Environmental Taxes, Tanzania

## 1. Introduction

Environmental tax is very crucial to support the government revenue in both developing and developed countries. According to Dahmani (2024), an environmental tax is a government imposed payment that significantly harms the ecosystem. An environmental tax is anticipated to have both environmental advantages and downsides. An environmental tax is any tax based on a physical unit that has been proven to have a specific environmental impact (Kartal, 2024). Environmental taxes may help poor countries address specific environmental challenges while encouraging sustainable production and consumption practices and providing the financial resources needed to improve environmental and social indices (Ullah et al., 2024). However, it should be highlighted that environmental taxes may cause both direct and indirect price increases for goods and services, so undermining social fairness, particularly among low-income families.

Environmental tax is a type of economic instrument used to solve environmental concerns.
In general, environmental taxes include energy taxes, transportation taxes, pollution taxes, resources taxes, and anti-dumping and countervailing duties (particularly on motor vehicles, known as TRA-excise duty due to age, which is charged at 30% of Cost, Insurance and Freight (CIF) for vehicles older than ten years and other circumstances beginning at eight years). Tanzania's environmental tax activities encompass air pollution enforcement and subsidy programs, water pollution enforcement and subsidy programs, solid waste management/pollution enforcement and subsidy programs, public health protection through public health law enforcement, and land reclamation activities.
Sustainable world economy refers to development that satisfies current needs without risking future generations' capabilities, providing a balance of economic growth, environmental stewardship, and social well-being. Economic sustainability seeks to preserve the economic system's long-term survival (Wang, 2024). Economic stability refers to the absence of excessive volatility in the macroeconomic. An economy is stable when it expands gradually and experiences minimal and steady inflation. Price stability, full employment, and economic growth are the primary indicators of economic stability. Brizga et al., (2024), identifies economic instability as rising inflation and unemployment rates together with declining economic growth rates.

## 2. Literature Review

This section explains the previous insights that done in different countries towards the introducing environmental taxes

### 2.1 Why Environmental Taxes for Sustainable World Economy

There are several reasons for the presence of environmental taxes in a global perspective; here, we will cover some of these issues;

Global warming has sparked an increased interest among policymakers in the use of environmental taxes as a way of tackling the problem in order to reach greenhouse gas reduction objectives established by the 1997 Kyoto Protocol. Environmental Pollution to shift the tax burden from production factors to pollution, with the purpose of cutting carbon emissions. Environmental pollution levies imposed on taxpayers assist to reduce pollution.

Environmental improvement, the European Union's approach to the environment has centered on using taxes to improve the environment while also using revenue to reduce discriminatory taxation on labor and manufacturing. This method is frequently referred to as providing a double dividend, in which the environment benefits while the economy benefits from the reduction in these distortionary levies (Karlilar et al., 2025). Thus, environmental levies have improved environmental protection. Environmental taxation has a significant impact on ensuring green economic development, starting with the assumption that in emerging economies, these taxes increase GDP while also preventing environmental degradation by reducing pollution and environmentally harmful supplies and practices (Soufiene et al., 2025).

Source of revenue, it is another source of public revenues. Tanzania is like other country depend on tax for purpose of revenue collection. Environmental taxes are the one of taxes that contribute to increase revenue collection in Tanzania. Taxes actively address market failure by "pricing in" environmental costs. A well-designed environmental tax raises the cost of an item or activity to reflect the environmental harm it causes to others. The cost of causing harm to others, referred to as a "externality," is thereby absorbed in market pricing. This guarantees that consumers and businesses factor these costs into their decisions (Habib et al., 2025).

Taxes allow consumers and companies to choose the most cost-effective strategy to mitigate environmental harm; most regulatory measures involve the government dictating how to cut emissions or who should do so. Similarly, subsidies and incentives for ecologically preferred items or behaviors include the government guiding the market toward specific environmental solutions over others. This necessitates extensive knowledge of rapidly changing situations and technology, as well as a high risk of making poor decisions. Regulations often cost more than taxes because they require certain sorts of abatement, even if cheaper options are available. The higher expense of polluting activities resulting from the environmental tax decreases its appeal to consumers and businesses. Unlike restrictions or subsidies, a tax provides people and organizations entire flexibility over how to change their behavior and reduce harmful actions. This allows market forces to choose the least expensive option for reducing environmental damage (Shi and Bai, 2025).

### 2.2 Is there a link between environmental taxation and sustainable economic growth?

1. Some research has indicated that there is a causative link between environmental taxes and sustainable economic growth. Some of the causal relationships are listed below:
2. An environmental tax is one that aims to restrict or lessen a negative impact on the environment. Environmental taxes are just a tool for ensuring environmental conservation and sustainable development (Murad et al., 2025).
3. Environmental taxation may help emerging economies achieve sustainable development and generate green money by taxing pollution and supporting environmentally friendly behaviors and technology.
4. Governments utilize taxes to encourage environmental compliance by offering incentives to those who reduce pollution from industry or consumption. Thus, environmental taxes enhance the ecosystem.
5. Other studies have provided evidence for a positive causal effect of environmental policies on economic growth. Topuz, (2025), outlines a variety of methods in which environmental improvements might boost economic growth, such as the possibility of a cleaner environment encouraging savings. Also, Mann and Roberts (2025), shows that when the reduced consequences of pollution on health are considered, the benefits of environmental legislation can be beneficial to the economy.
6. Policy interpretation, to support sustainable economic growth while managing natural resources and pollution levels efficiently, smart techniques are needed. As a result, the relationship between

ecologically friendly taxation and environmental development in conjunction with revenue recycling is critical. For example, in several OECD nations, motor fuel and vehicle taxes are used to build or maintain roads, as well as for other activities such as installing noise-protection barriers, developing cycling lanes, and improving public transportation (Guan, et al., 2025).

**2.3 Advantages of introducing environmental taxes in Tanzania**

Environmental taxes provide a continued incentive to cut emissions at all levels, even after significant reductions have been made. Environmental tariffs, particularly automotive fuel taxes, increase demand for low-emission alternatives such as public transit and cycling. This creates economies of scale, making such solutions more viable without requiring direct subsidies (Guan, et al., 2025). Environmental taxes raise the cost of pollution for polluters, motivating firms to develop new ideas and execute existing ones. Enhanced innovation lowers the long-term cost to society of addressing environmental issues.

Transparency, the coverage and expenses of environmental levies are quite clear. In general, it is evident what is subject to taxes, which polluters are exempt, and how much each unit of pollution will cost polluters. Cost certainty against environmental certainty: Environmental taxes raise the price of specific goods and activities in a predictable and reasonably straightforward manner. This facilitates the assessment of the first financial impact on businesses and consumers. However, estimating the extent of the environmental damage and forecasting their response to such pricing adjustments are a little more challenging (OECD, 2011). The source of public funds in order to raise money for public spending, governments also impose explicit environmental taxes and other levies on ecologically linked grounds.

**2.4 How to design effective environmental taxes**

A lot of issues need to be carefully considered in order for environmental taxes to be implemented effectively. High economic expenses and a diminished environmental impact might result from poorly crafted levies. The following are a few considerations to take into account:

The pollutant or polluting activity should be the focus of environmental tax bases; in principle, an environmental tax should be imposed as directly as possible on the pollutant or conduct that is causing the environmental harm. The full spectrum of possible abatement options, including cleaner production processes, end-of-pipe abatement (i.e., measures to capture and neutralize emissions before they enter the environment), adoption of existing products that cause less pollution, development of new, less- polluting products, and reducing output or consumption, are all encouraged when the tax is used to raise the market cost of the polluting activity (Guan, et al., 2025).

An environmental tax's scope should ideally match the extent of the environmental harm; the extent of the environmental harm being addressed determines the proper scope of the tax. The level of the political jurisdiction that levies the tax is affected by this. The effects of certain issues, such as soil pollution, are often restricted to a particular geographic region. As a result, a municipality or township may essentially levy a tax or fee on hazardous garden chemicals or trash disposal (Mann and Roberts, 2025),

The flexibility of environmental taxes to offer comparable abatement incentives on each unit of pollution is one of its benefits; they should be applied consistently with few, if any, exclusions. In order to guarantee that environmental objectives are met at the lowest possible societal cost, homogenous taxes promote abatement at the lowest-cost source. In addition to lowering the administrative expenses for the government and the costs of compliance for taxpayers, a consistent tax also lessens the likelihood of tax evasion (Mann and Roberts, 2025).

The tax rate need to be proportionate to the harm done to the environment. In general, the tax rate should be determined by taking into account the need to increase public revenues, the value society places on environmental harm, and other detrimental spillover consequences of the activity:

Reflecting environmental damage, by adjusting the tax rate to account for environmental damage, producers' and consumers' prices are guaranteed to represent the environmental cost of their activities. This gives them a monetary incentive to consider such effects while making judgments. Reflecting non- environmental externalities: Other social consequences are frequently linked to the activities that are subject to environmental levies. For instance, while burning fuel in motor vehicles causes local air pollution that can lead to respiratory issues and contributes to climate change, using a vehicle also

causes traffic congestion, which has detrimental effects on the economy and society because of lost time, and it can result in injuries when accidents happen. It may therefore be necessary to use a variety of tools, such as road pricing. Given the trade-offs between failing to sufficiently address externalities and the dangers of creating more distortions in production methods, figuring out the right rates for the existing environmental taxes becomes increasingly difficult in the absence of an optimal set of policy tools (Guan, et al., 2025).

Increasing revenue: In order to finance public spending, governments also impose explicit environmental taxes and additional levies on ecologically linked grounds.
To encourage environmental changes, the tax has to be believable and have a predictable rate. Pollution reduction may be impacted by environmental policy, particularly taxation, in both immediate and long- term ways. Short-term pricing fluctuations, especially those brought on by tax increases, may cause businesses to cut back on output and consumers to adopt less polluting habits. However, economic agents may readily return to their previous behaviors with little expense or effort if the modifications were swiftly undone. More basic adjustments with longer-term effects are known as structural reactions. Examples include adjustments to choices about capital investments, innovation initiatives, or the acquisition of consumer durables and real estate. These changes are driven by the long-term outlooks and expectations of investors, companies, and consumers, especially with regard to pricing. For an environmental tax to lead to structural changes in abatement and innovation activities, the public must be convinced that the government has done its homework and is committed to implementing the tax. Effective communication, stakeholder conversations, and planning are essential to building this type of credibility.

## 3. Methods

The empirical analysis was used from 13 research articles and different reports from various international institutions database such as IMF, WB and African development bank and TRA from semantic scholar, google scholar and research gate.

## 4. Result

Like many other countries, Tanzania uses environmental fines to prevent environmental damage. The Tanzanian government employs these levies to encourage environmental conservation by reducing or doing away with taxes on eco-friendly products and technology. Additionally, by providing financial incentives to individuals who adopt techniques to minimize pollutants that arise from production or consumption, environmental levies are used by the government to promote compliance with environmental rules.

Tanzania's National Environmental Action Plan (NEAP) recommended the usage of environmental taxes. According to NEAP, tax incentives and subsidies are among the primary policy instruments the government use to support sustainable development. Environmental degradation has been prevented by imposing taxes on environmentally damaging products, procedures, and consumption patterns (Dahmani, 2024).
In addition to the preventative objectives, Tanzanian environmental conservation activities have been supported by the taxes collected. Corrective measures for the environmental factors that the industry or product has affected are usually funded by taxes on that particular firm or product.
According to Dahmani (2024), the NEAP proposed charging an environmental fee for imports, licenses, and domestic goods. This money would go toward funding programs for solid waste management, pollution control, and subsidies; programs for air pollution enforcement and subsidies; and programs for water pollution enforcement and subsidies.

- Initiatives for land reclamation and the use of public health laws to safeguard the people's health.
- Environmental taxes in Tanzania are levied for the purpose of;
- Promoting economic efficiency by requiring polluters to pay the economic costs that their pollution imposes on others, and
- The polluter pays principle has assured fairness in allocating cleanup costs by making sure that they are borne by the polluter rather than the innocent public.

In industries where environmental concerns are prominent, smaller enterprises sometimes lack the financial resources (means) to guarantee cleanup in the case of a major accident or leak. It has been demonstrated that taxes that finance cleanup or insurance funds safeguard the environment by allowing small businesses to continue functioning, as these firms are often backed by the enterprises that pay the tax (Dahmani, 2024).

Techniques used by Tanzania Revenue Authority and Local Government Authorities to collect environmental taxes while environmental tax measures need consultation with the National Environmental Management Council, TRA only collects aunt disposal costs from automobiles older than eight years, and the fee is thirty percent CIF. In order to keep municipal cities like Moshi and Iringa clean generally, the local government organization is in charge of gathering environmental statistics on things like minerals (sand duties), construction stones (materials), chalcoal (forest product), and laws.

How the government benefits from environmental subsidies (profits) from the standpoint of Tanzania nature with regard to forests, rivers, lakes, and the sea taxes on the selling of timber, chalcol, and the money made from the production of oxygen help the government. According to Joint Forest Management, JFM is a codified administration model where the forest manager and the forest owner have the two main interests. When a JMA is signed, ownership is retained but user and management privileges are transferred. The following are described in Section 16 of the Forest Act of 2002:

JFM supports sustainable forest management, although this has to be verified by more study and evidence. There is little proof of better lives, especially when it comes to the more obvious financial benefits of forest management. According to a recent evaluation of JFM in the Iringa region Dahmani, (2024). JFM areas inside NFRs only provide an average yearly village revenue of US$189. Among the many different causes of this poor performance are the following:

1. Many early donors focused their PFM support on high biodiversity and defense timberlands, such catchment forests, because of the national and international interest in preserving important forest ecosystems. There are often few local use alternatives and associated management duties due to the national and international significance of these forests.

2. Although there has been little success in this area, a sizable percentage of the central government's forest reserves are productive woods that are ideal for JFM arrangements. The lack of a legal foundation for allocating the substantial profits from productive forests (natural or planted), which makes legally enforceable agreements challenging, and the resistance of some groups to distributing central government funds to local communities are two potential reasons for this.

3. The money that village forest managers get from penalties collected by local patrols for illegal activity inside the forest is crucial, particularly when the state of the forest precludes economically advantageous operations like wood harvesting. When forest areas are managed by the community effectively, there are less incentives for open-access harvesting, which lowers illegal activity and the money collected from fines. As a result, the profits of local forest management committees have sometimes fallen to such low levels that it is now difficult to pay for even the most basic of costs.

4. When forests are achieved in more maintainable ways, nature inhabitants tend to upsurge and recolonize from surrounding positions. The aptitude of villages to benefit from this recently found resource is hindered by Tanzania's strict, bureaucratic laws and regulations governing community wildlife management. Increased animal populations in JFM areas may result in an unforeseen and growing cost due to crop raiding and property destruction. This is particularly troublesome for larger animals like buffaloes and elephants that are a menace to humans and property. Communities may be granted hunting concessions and wildlife management rights through the establishment of WMAs, but this requires complex institutional arrangements, and it is yet unknown if a region can be managed as both a VLFR and a WMA at the same time.

## 5. Conclusion

One important tool for tackling environmental issues is environmental taxes. When correctly planned, charged as near to the activity or pollutant that is harming the environment as feasible, and set at a rate that is appropriate, taxes may be fairly effective. Demanding proxies for environmentally dangerous tasks should be necessary due to administrative expenses or restrictions, but caution should be exercised to prevent damaging ecological belongings. The fund raised can be used to inferior other tax charges or aid in fiscal merging. Supplied and competitive subjects are raised by ecological duties, although they are often better handled by other rule instruments. The public's acceptance and the effectiveness of environmental taxes depend on

transparency, clarity, and information. Last but not least, levies may essential to be collective with other tools to build the utmost effective and efficient ecological rule bundle; nonetheless, it is crucial to carefully analyze the implications of overlapping instruments.

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